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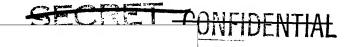
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| TO :     | The Files - RD-103, T. 0. 8   | DATE: <b>24. February 1959</b>  |
|----------|---|---|
| FROM :   |   | DOC 6 REV DATE 31 MAR BY 064540 ORIG COMP 033 OP! 56 TYPE 02 ORIG CLASS 5 PAGES 4 REV CLASS C |
| subject: | Trip Report - AS-6 Data Transmitter   | ORIG CLASS S PAGES 4 REV CLASS C  JUST 22 NEXT REV 2010 AUTH: HR 10-2                         |
|          | 1. On 22, 23 and 26 January 195 regarding RD-103, Task Order 8, devel mitter, AS-6, were held at the Participating in the con January were: | 9 a series of conferences opment of Automatic Data Trans- ferences held on 22 and 23          |

representatives brought with them a model of the collector unit they are delivering to TSS. This unit was matched to transmitter and no difficulty was encountered in interconnecting the two devices. The logic circuits of the mitter are able to read out the memory properly and about 90% of the circuits connecting the two devices were checked out. Full agreement was reached regarding the voltage and pin connections of the reported that progress on the field remaining functions. unit was on schedule and that the base station work was only slightly has been notified that there is a strong behind schedule. possibility we will formally request them to furnish a second field unit and base station and is prepared to begin this construction as soon as it is authorised.

The AS-6 transmitter will be very close to its weight limit of 30 pounds. The collector will also weigh about 30 pounds and present indications are that the power supply will weigh 30 pounds or slightly more. A lengthy discussion of the accessories necessary to properly install this equipment revealed that the 30 pound weight equipment did not include accessories and that the ground stakes, antenna mounting bracket, ground plane leads and the tools could conceivably weigh an additional 30 pounds. was told that every effort must be made to reduce the weight of these



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|                 | accessory kits. described the method of transport and   | 25X <sup>2</sup>                     |
|                 | installation of the AS-6 and impressed upon the engineers the necessity of reducing the weight of the complete system to the absolute minimum. It was pointed out that in one of the two AS-6 sites the installation would be made within a group of trees and that these trees could be used as antenna supports. At the other site a whip antenna only must be used. A percussion drill powered by rifle cartridges which is capable of driving a steel pin into solid concrete | 25X <sup>2</sup>                     |
|                 | was demonstrated by recommended that a drill such as this, which weighs 8 pounds, be considered for securing guy wires and grounding stakes into permafrost.  | 25X′                                 |
|                 | 4. The following test program for the AS-6 and cellector equip-   | 25X1                                 |
|                 | ment was agreed upon. During the week of 25 March 1959,   | 25X1                                 |
|                 | and the representatives will participate in a test of the   | 25X1                                 |
|                 | collector unit at a suitable location The Office of Communi-  | 25X1                                 |
|                 | cations and will not participate in this test. During the week of 13 April 1959 the first on-the-air test of the field  | 25X<br>25X                           |
|                 | units will be made from Washington The collector  | 25X<br>25X                           |
|                 | will be used with the AS-6 field unit during this test and a full   | 25X1                                 |
|                 | systems test will be made. During the week of 27 April 1959 a fully   |                                      |
|                 | simulated operational installation and test will be made from   | 25X1                                 |
|                 | This test will be made into the and will continue for about 10 days.  | 25 <b>X</b> ′                        |
|                 |   |                                      |
|                 | 5. The training of an I&MB engineer in AS-6 base station opera-   | 25X1                                 |
|                 | tion will begin during these tests. It is anticipated that the IAMB representative will observe the Washington to test in   | 25X1                                 |
|                 | Washington to become familiar with the operation of the field unit.   | 25X1                                 |
|                 | He will then travel to with the engineers for   | 25X1                                 |
|                 | instruction in operation and maintenance of the AS-6 base station. He   |                                      |
|                 | will remain in for the duration of the tests and  | 25X1                                 |
|                 | as long afterwards as is necessary to become thoroughly familiar with the AS-6 base equipment.  | 25X1                                 |
|                 | 6. On 23 January a discussion was held with   | 25X′                                 |
|                 | and regarding remote operation of the AS-6 transmit ter-  | 25X′                                 |
|                 | minal. It was explained that it was highly desirable to be able to  |                                      |
|                 | control the transmit equipment from the AS-6 receive base station,  | 0EV/                                 |
|                 | during the hours when the transmit station was unattended.  explained that the frequency channel of the 231-D used at the   | 25X <sup>2</sup><br>25X <sup>2</sup> |
|                 | AS-6 transmit station could be changed from a remote location by  |                                      |
|                 | using the original dial system provided with the He agreed  | 25X′                                 |
|                 | to provide for remote switching of the 25 cps and 50 cps modulation   | 051/4                                |
|                 | on the exciter unit which is constructing for driving the   | 25X′<br>25X′                         |
|                 | 7 On 26 January of the arrived  | 25X <sup>2</sup>                     |
|                 | at to discuss the power supply is fabricating for the   | 25X1                                 |
|                 | AEC, which will be used with the AS-6. A detailed review of the power   | 25X1                                 |
|                 | requirements was made and it was noted that the requirements  |                                      |
|                 |   | 25X1                                 |

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